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Lice Control on Cattle

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Cattle lice identification and control, as well as life cycle, are discussed in this NebGuide.

Cattle lice may be the most underestimated livestock insect in terms of economic losses — USDA estimates that U.S. livestock producers lose \$125 million a year to cattle lice.

Heavy louse populations cause lowered milk production, loss of flesh, stunted growth, general unthriftiness and anemia. “Chronic” or “carrier” cows may abort due to louse-induced anemia. During severe winters, louse-infested animals are more susceptible to respiratory diseases.

Fall and spring calves, yearlings and older unthrifty cattle usually have the heaviest lice infestations. Heavily infested cattle generally are in poor physical condition with rough, patchy hair coats that appear dirty.

University of Nebraska–Lincoln studies and studies of others indicate that moderate to heavy lice populations may reduce weight gains of calves by as much as 0.21 lb/day. Nebraska cattle usually are infested with more than one species of louse. These studies also indicate that calves fed at a higher nutrition level had lower lice populations and were affected less severely by lice than calves fed a maintenance ration.

Older cattle may be “chronic” or “carrier” animals that, despite repeated insecticide treatments, continue to carry heavy lice populations. They are instrumental in reinfesting entire herds each year and should be culled.

Three species of blood-sucking and one species of chewing or biting lice are found in Nebraska. The latter feeds exclusively on sloughing skin.

Life Cycle

The life cycle of all lice species is similar. Lice are host specific and spend all of their lives on the animal.

Eggs (nits) are deposited on the hairs of cattle. The feeding habits of immature lice are the same as those of the adults. The life cycle from egg to adult is from three to four weeks during cold weather. Reproduction slows dramatically in warm weather.

In the summer, lice generally can be found only in the folds of skin between the legs and body of cattle. In the winter, as populations increase, lice move to the neck, dewlap, muzzle,

around the eyes, the neck and side of the face, back, sides and tailhead. Specific locations are favored by particular species but overlap is considerable.

Lice are transmitted from one animal to another by contact. Suckling calves become infested from lice-infested cows while feeding, so cows should be treated prior to calving.

Control

Consult EC1550, *Nebraska Management Guide for Control of Arthropod Pests of Livestock and Horses*, for a listing of specific insecticides recommended for lice control. Read, understand and then comply with insecticide labels when treating livestock.

Some insecticides cannot be used on lactating dairy cattle, and some restrict use on calves under 3 months of age. Many have treatment-slaughter intervals and treatment frequency restrictions.

Fall applications of the systemic pour-on, spot-on, spray, injectable or dip insecticides for grub control give added benefits of reducing louse populations.

These treatments may be insufficient to prevent a build-up during severe winters. Most can be used again after the grub treatment cut-off date (Nov. 1 to Feb. 1), and are quite effective. Some may have a reduced treatment rate for lice control.

Endectocide injectable wormers are very effective for the blood-feeding lice species, but may not control the chewing louse. Consequently, pour-ons are favored for lice control, but may be somewhat less effective for internal parasite control.

Systemic insecticides used between Nov. 1 and Feb. 1 might bring about a host-parasite reaction as a result of killing grubs while they are in the esophagus or spinal canal of the animal. However, cattle can be treated effectively with non-systemic insecticides if they need treatment during the cutoff period for grub treatment. Generally few cattle in Nebraska are infested with grubs because most ranchers treat for grubs and lice at weaning. Most ranchers use endectocides that control both internal and external parasites.

Lice-infested cattle may be detected because they exhibit excessive scratching and grooming. Itching is indicated when barb wire fences have hair on the barbs and the infested cattle show hair loss and an unthrifty appearance.

Cattle with white faces and necks may show a dark, greasy appearance if lice populations are heavy. Cattle can be examined for lice by containing them in a squeeze chute and examining the face, dewlap, neck, back and tailhead. Lice can be seen by making a two-handed hair part of those areas in good light. Lice numbers averaging more than three per square inch indicate a need for treatment.

Examine treated cattle after about 14 days, regardless of treatment method, to determine if a second or continued treatment is necessary. Most insecticides are not effective against eggs, so lice hatched after treatment may reinfest the animal. When spraying or dipping in the winter, pick a warm day so the cattle will be dry by sundown. This practice reduces cold stress.

Insecticide dust bags and oilers used for fly control also can be used to control lice. The best results are obtained when these self-treatment devices are used to prevent a serious build-up of louse populations. Once heavy populations are present, it will take two to four weeks to reduce the louse population to non-economic levels. Insecticide-impregnated ear tags used for fly control have been ineffective in controlling lice.

Replacement animals brought into a herd during winter months should be examined for lice. If present, the animals should be treated before being exposed to cattle in the herd.

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